

FRONT ELEVATION

Scale: 1/4" = 1'-0"

ELEVATION NOTES

BUILDING CODES
THIS PLAN HAS BEEN DESIGNED UNDER THE NC BUILDING CODES, 2018 RESIDENTIAL EDITION.






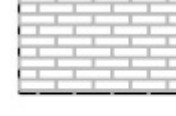
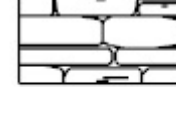

ICE GUARDS:
ASPHALT SHINGLES SHALL BE USED ONLY ON ROOF SLOPES OF TWO UNITS VERTICAL IN 12 UNITS HORIZONTAL (2:12) OR GREATER. FOR ROOF SLOPES FROM TWO UNITS VERTICAL IN 12 UNITS HORIZONTAL (2:12) UP TO FOUR UNITS VERTICAL IN 12 UNITS HORIZONTAL (4:12), DOUBLE UNDERLAYMENT APPLICATION IS REQUIRED IN ACCORDANCE WITH SECTION R905.1.1.

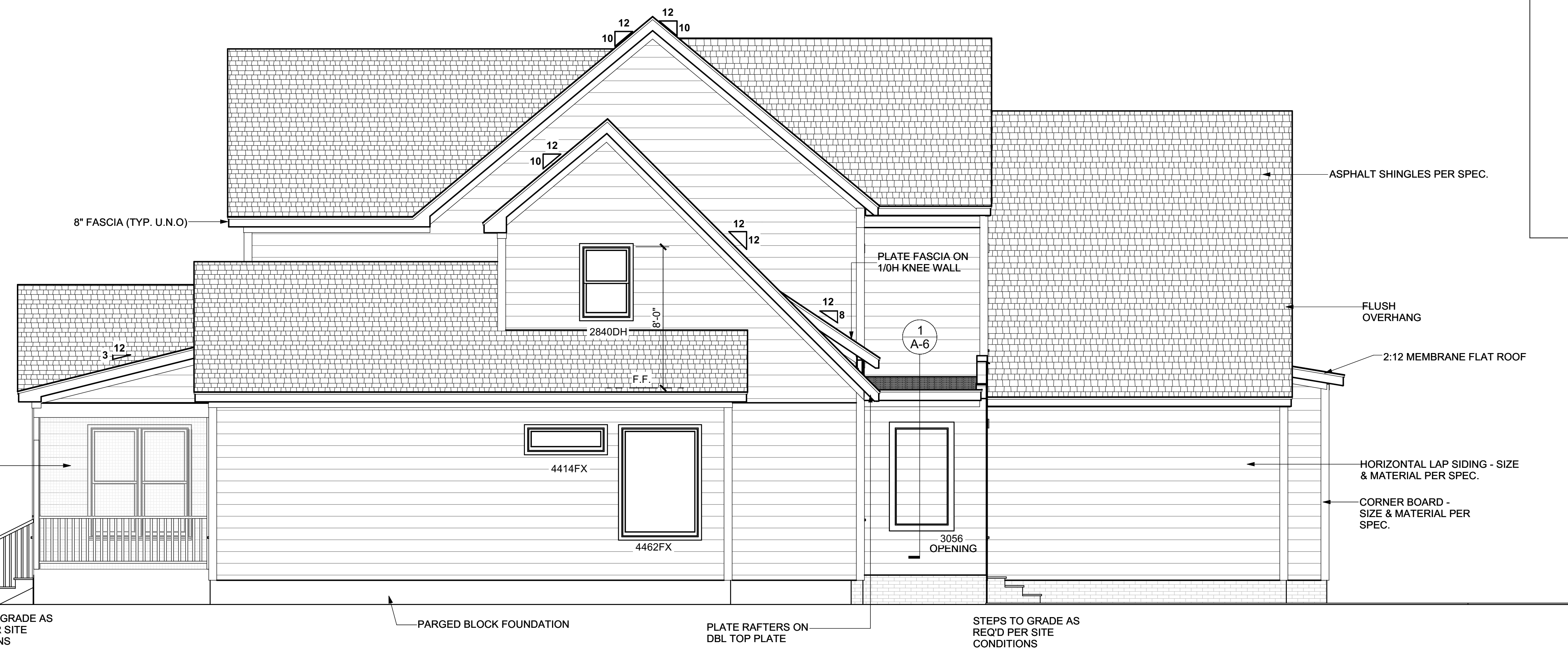
VENTING CALCULATIONS

CRAWL SPACE VENTILATION
THE MIN. NET FREE AREA OF CRAWL VENTILATION OPENINGS SHALL NOT BE LESS THAN 1 SQ. FT. FOR EACH 150 SQ. FT. OF CRAWL SPACE AREA.
1987SQ. FT. CRAWL SPACE AREA / 150
13.2X SQ. FT. NET FREE AREA REQUIRED
*MAY BE REDUCED BY 50% W. VAPOR BARRIER

ATTIC VENTILATION
2809 SQ. FT. OF ATTIC / 300 = 9.3 SQ. FT. OF INLET AND OUTLET VENTILATION MAY BE REDUCED 50% WHEN VENTILATORS ARE USED AT LEAST 3'-0" ABOVE THE CORNICE VENTS.

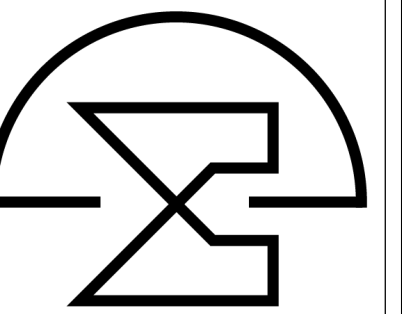
MATERIAL LEGEND

-  ASPHALT SHINGLES
-  STANDING SEAM METAL ROOF
-  HORIZONTAL LAP SIDING
-  BOARD & BATTEN SIDING @ 16"O.C.
-  SHAKE SIDING
-  BRICK VENEER
-  SYNTHETIC STONE VENEER
-  PARGED BLOCK FOUNDATION



LEFT ELEVATION

Scale: 1/4" = 1'-0"



Sheet Title:
Exterior Elevations

| REVISIONS | |
|-----------|------|
| NUMBER | DATE |
| | |
| | |

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Plan Number
M110-24
Sheet No. **A-1**

Drawn By: TV

Date: 11/8/2024

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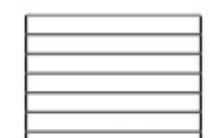





REAR ELEVATION
Scale: 1/4" = 1'-0"

ELEVATION NOTES

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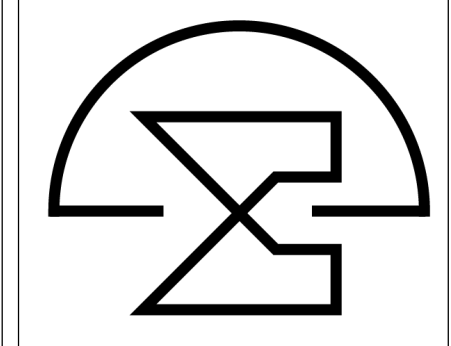
MATERIAL LEGEND

-  ASPHALT SHINGLES
-  STANDING SEAM METAL ROOF
-  HORIZONTAL LAP SIDING
-  BOARD & BATTEN SIDING @ 16" O.C.
-  SHAKE SIDING
-  BRICK VENEER
-  SYNTHETIC STONE VENEER
-  PARGED BLOCK FOUNDATION



RIGHT ELEVATION
Scale: 1/4" = 1'-0"

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847 Wake Forest Business Park, Suite 102
Wake Forest, NC 27587
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Lilium Homes
Cotton Farms
Lot #13

Sheet Title:
Exterior Elevations

REVISIONS

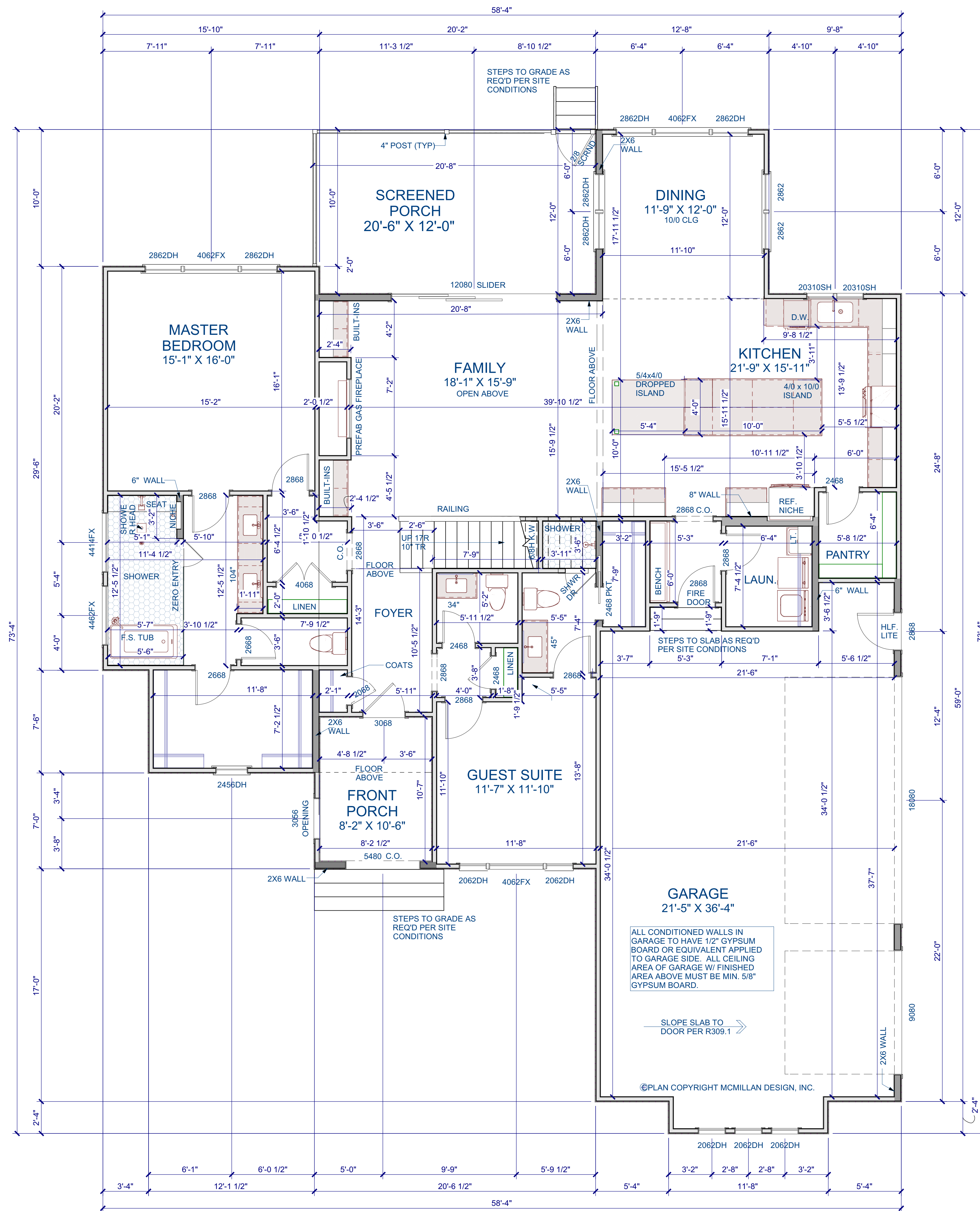
| NUMBER | DATE |
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Plan Number
M110-24
Sheet No. **A-2**

Drawn By: **TV**
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GENERAL NOTES

WALLS
 ALL WALLS ARE DRAWN 3.5" WIDE (2X4) OR 5.5" WIDE (2X6) U.N.O. ANGLED WALL ARE DRAWN @45° U.N.O. EXTERIOR DIMENSIONS ARE TO FACE OF SHEATHING. INTERIOR DIMENSIONS ARE TO FACE OF STUD.

SMOKE DETECTORS
 LOCATION AND NUMBER OF DETECTORS SHALL CONFORM TO NEC.

EGRESS
 ALL BEDROOMS MUST HAVE AT LEAST ONE WINDOW WHICH CONFORMS TO R-310 OF THE N.C. BLDG. CODE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY CHOSEN WINDOWS MEET EGRESS REQUIREMENTS AS MANUFACTURERS VARY.

ATTIC ACCESS
 MIN. ATTIC ACCESS SHALL BE PROVIDED BY BUILDER AND LOCATED ON SITE.

WALL/CEILING HEIGHT
 WALL AND CEILING HEIGHT NOTES ARE BASED ON NOMINAL WALL SIZE. KNEE WALL HEIGHT LABELS FOR WALLS UNDER RAFTERS ASSUME AN EXTRA 2" FOR FURRING (IN HEATED SPACES) FOR INSULATION. THE WALL HEIGHT REFERS TO THE HGT. FROM THE FLOOR DECKING TO THE BOTTOM OF THE FURRING.

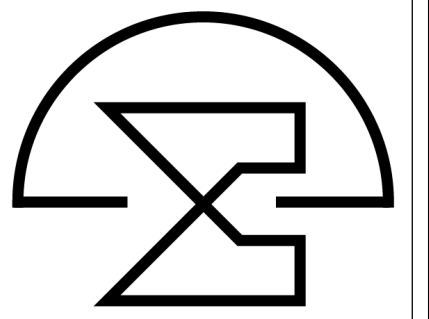
WINDOW NOTE LEGEND

DH DOUBLE HUNG
 SH SINGLE HUNG
 FX FIXED
 SC SINGLE CASEMENT
 DC DOUBLE CASEMENT
 TC TRIPLE CASEMENT

| Square Footage | |
|-----------------------------------|--------------|
| Heated Square Footage | |
| First Floor | 1,987 |
| Second Floor | 1,146 |
| Total Heated | 3,133 |
| Unfinished | |
| Front Porch | 94 |
| Screened Porch | 248 |
| Three Car Garage | 816 |
| Total Unfinished | 1,158 |
| Unfin. Storage and Options | |
| Walk-in Storage #1 | 185 |
| Walk-in Storage #2 | 167 |
| Total Storage / Options | 352 |

FIRST FLOOR PLAN

Scale: 1/4" = 1'-0"



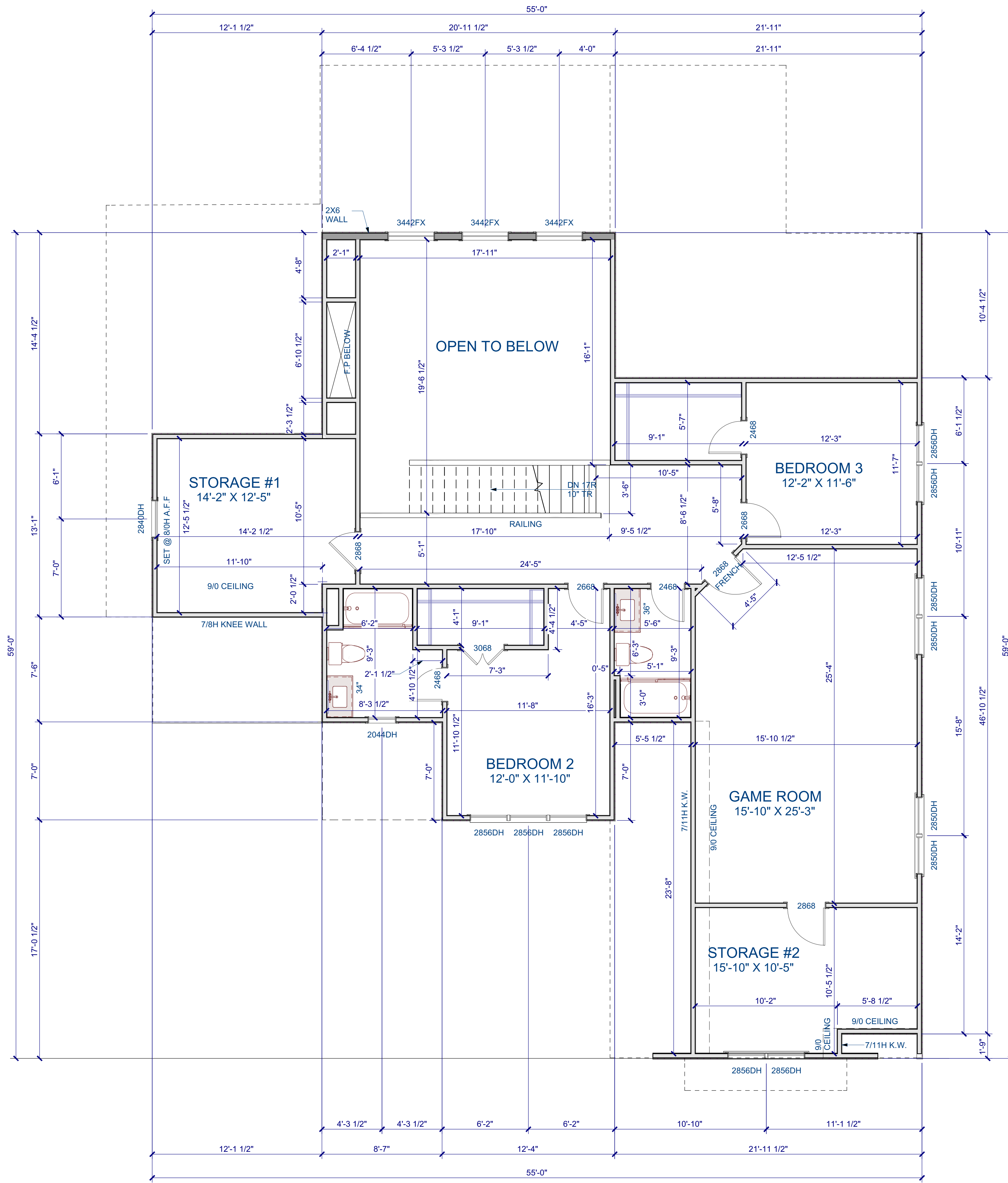
Lilium Homes
Cotton Farms
Lot #13

Sheet Title:
First Floor Plan

| REVISIONS | |
|-----------|------|
| NUMBER | DATE |
| | |
| | |

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Plan Number
M110-24
 Sheet No. **A-3**
 Drawn By: **TV**
 Date: **11/8/2024**
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GENERAL NOTES

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 ALL WALLS ARE DRAWN 3.5" WIDE (2X4) OR 5.5" WIDE (2X6) U.N.O.
 ANGLED WALL ARE DRAWN @45° U.N.O.
 EXTERIOR DIMENSIONS ARE TO FACE OF SHEATHING. INTERIOR DIMENSIONS ARE TO FACE OF STUD.

SMOKE DETECTORS
 LOCATION AND NUMBER OF DETECTORS SHALL CONFORM TO NEC.

EGRESS
 ALL BEDROOMS MUST HAVE AT LEAST ONE WINDOW WHICH CONFORMS TO R-310 OF THE N.C. BLDG. CODE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY CHOSEN WINDOWS MEET EGRESS REQUIREMENTS AS MANUFACTURERS VARY.

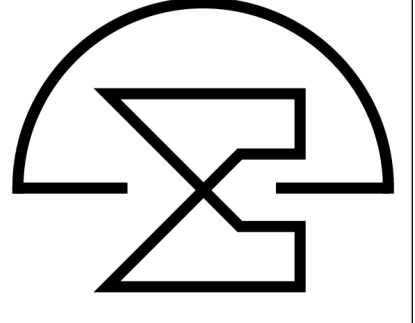
ATTIC ACCESS
 MIN. ATTIC ACCESS SHALL BE PROVIDED BY BUILDER AND LOCATED ON SITE.

WALL/CEILING HEIGHT
 WALL AND CEILING HEIGHT NOTES ARE BASED ON NOMINAL WALL SIZE. KNEE WALL HEIGHT LABELS FOR WALLS UNDER RAFTERS ASSUME AN EXTRA 2" FOR FURRING (IN HEATED SPACES) FOR INSULATION. THE WALL HEIGHT REFERS TO THE HGT. FROM THE FLOOR DECKING TO THE BOTTOM OF THE FURRING.

WINDOW NOTE LEGEND

| | |
|----|-----------------|
| DH | DOUBLE HUNG |
| SH | SINGLE HUNG |
| FX | FIXED |
| SC | SINGLE CASEMENT |
| DC | DOUBLE CASEMENT |
| TC | TRIPLE CASEMENT |

SECOND FLOOR PLAN
 Scale: 1/4" = 1'-0"



Lilium Homes
Cotton Farms
Lot #13

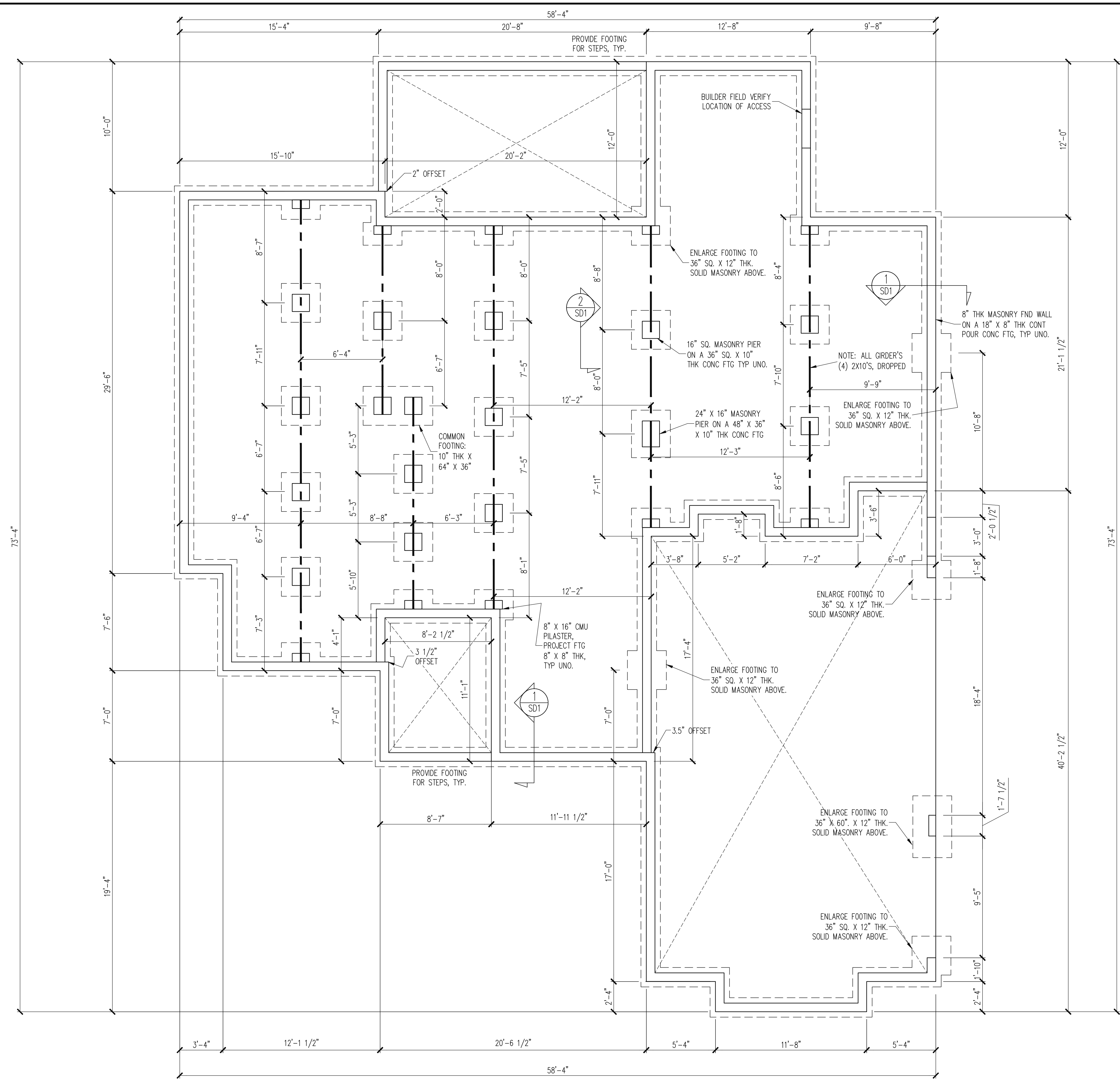
Sheet Title:
Second Floor Plan

REVISIONS

| NUMBER | DATE |
|--------|------|
| | |
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Plan Number
M110-24
A-4
 Sheet No.
 Drawn By: TV
 Date: 11/8/2024
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CONSTRUCTION SPECIFICATIONS
INSTANT REFERENCES

REFER TO THE CONSTRUCTION SPECIFICATIONS SECTIONS FOR THE FOLLOWING INFORMATION:

PART 1.01: CURRENT GOVERNING CODE

PART 14: STUD SUPPORT FOR BEAMS

PART 16.02: GENERAL WALL BRACING NOTES

PART 17: KING STUDS FOR EXTERIOR WALLS

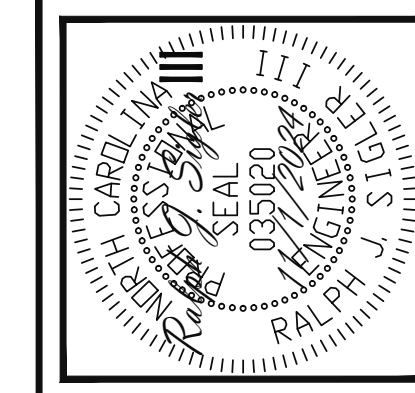
SEE DETAIL / CONSTRUCTION SPECIFICATIONS SHEETS FOR I-JOISTS ALLOWABLE SUBSTITUTIONS

NOTES:

- HEIGHT AND BACKFILL LIMITATIONS FOR FOUNDATION WALLS ARE TO BE GOVERNED BY THE NCSCC, LATEST EDITION.
- 14" SQ POURED CONC PIERS OR 16" Ø POURED CONC PIERS MAY BE USED IN LIEU OF 16" SQ MASONRY PIERS.

FOUNDATION PLAN
 1/4" = 1'-0"

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Engineering Tech Associates, P.A.

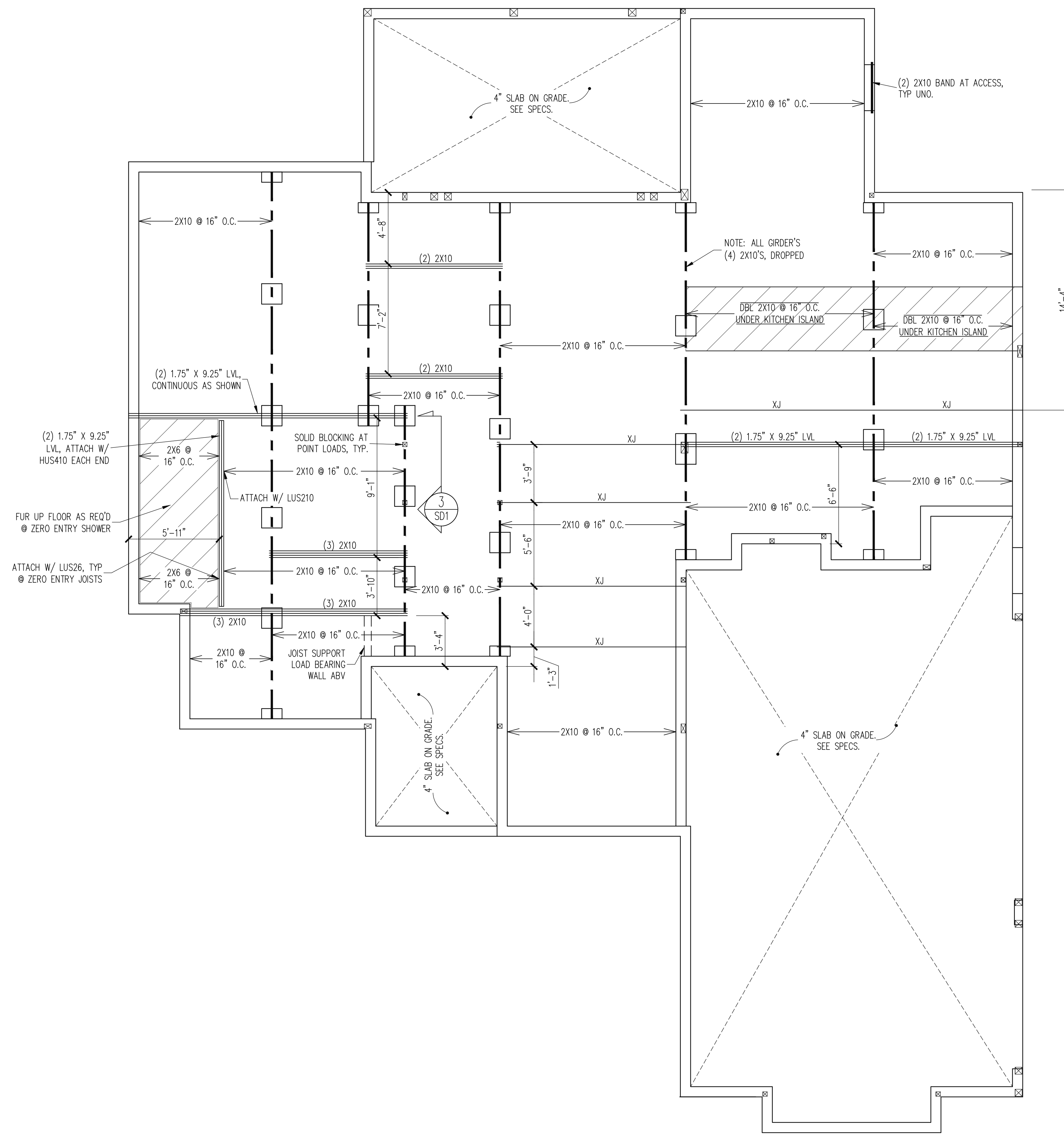
| | |
|----------------------------|-----------------------|
| LILJUM HOMES | |
| STRUCTURAL ADDENDUM | |
| SCOPE: | REV # REF PROJ # DATE |
| LOC: | 1 24-66-350 11-1-2024 |
| 13 COTTON FARMS | |

ENG: RJS/CR
DATE: 11/1/2024

PLAN
 M110-24

PROJECT NO.
 24-21-198_450

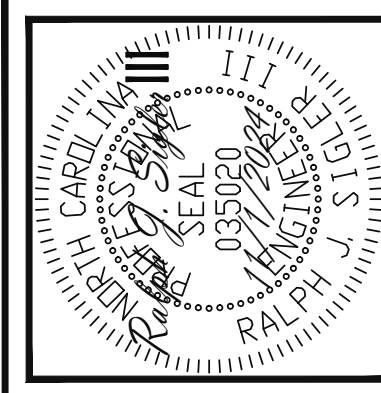
SHEET NO.
 S1
 1 of 7



CRAWLSPACE FRAMING PLAN

1/4" = 1'-0"

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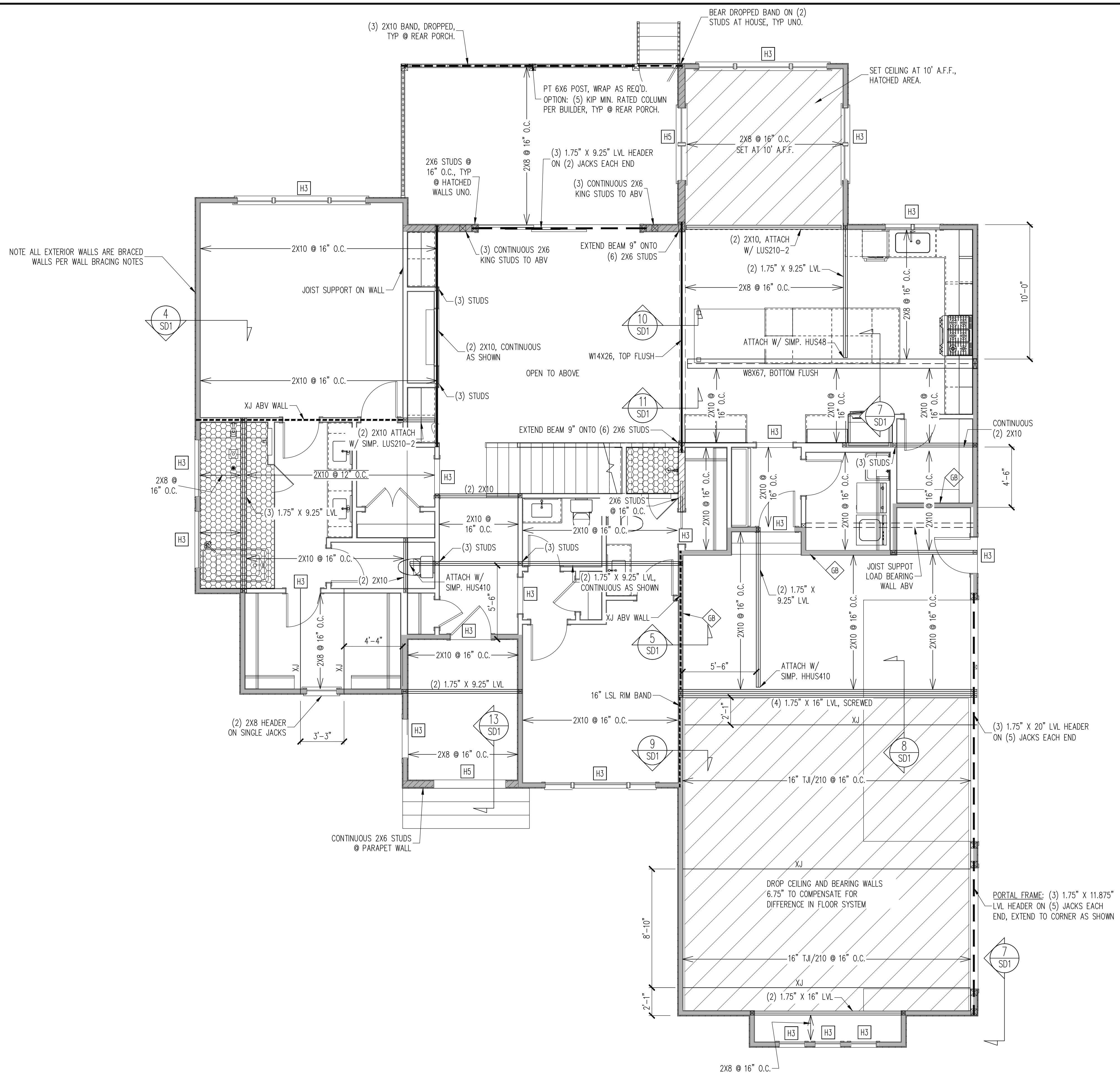
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|--------|-----------------|-----------|
| SCOPE: | LILJUM HOMES | |
| LOC: | 13 COTTON FARMS | |
| REV # | REF PROJ # | DATE |
| 1 | 24-66-350 | 11-1-2024 |

ENG: RJS/CR
 DATE: 11/1/2024

PLAN
 M110-24

PROJECT NO.
 24-21-198_450

SHEET NO.
 S2
 2 of 7



NOTE ALL EXTERIOR WALLS ARE BRACED WALLS PER WALL BRACING NOTES

WALL BRACING

SHADED WALLS:

ALL EXTERIOR STUD WALLS, EXTERIOR SIDE, ARE TO BE CONTINUOUSLY SHEATHED WITH 7/16 APA RATED OSB NAILED TO STUDS WITH 8d NAILS @ 6" O.C. AT PANEL EDGES, 12" O.C. IN PANEL FIELD.

WSP - ONE SIDE OF INTERIOR WALL OR INSIDE OF EXTERIOR WALL WITH 3/8" MIN. THICKNESS WOOD STRUCTURAL PANELING. ATTACH WSP TO STUD WALL WITH 8d NAILS @ 6" O.C. AT PANEL EDGES, 12" O.C. IN PANEL FIELD.

GB - INTERIOR BRACED WALL. 1/2" GB SECURED PER TABLE R602.10.2 OF THE 2018 NCRBC. (FASTENERS @ 7" O.C.) BOTH SIDES OF WALL, OR (FASTENERS @ 4" O.C.) ONE SIDE OF WALL AT STAIRS (BUILDER PERMITTED TO SUBSTITUTE "WSP" FOR ANY "GB" WALL)

NOTES:
PROVIDED CONTINUOUS SHEATHING = 243' MIN.

REFERENCE PART 16.02 OF CONSTRUCTION SPECIFICATIONS FOR GENERAL WIND BRACING INFORMATION.

HEADER SCHEDULE

H1 SINGLE 2X4 TURNED FLAT (A)
H2 (2) 2X4'S ON SINGLE JACKS (B)
H3 (2) 2X10'S ON SINGLE JACKS (C)
H4 (2) 1.75" X 9.25" LVL'S ON DBL JACKS
H5 (3) 2X10'S ON SINGLE JACKS

(A) TYPICAL FOR INTERIOR NON LOAD BEARING WALLS ONLY, ROUGH OPENING 38" MAX.
(B) TYPICAL FOR INTERIOR NON LOAD BEARING WALLS ONLY, ROUGH OPNG 38" TO 74" MAX.
(C) TYPICAL FOR ALL CONDITIONS NOT LISTED IN (A) OR (B) UNO.

NOTES:
-HEADERS IN NON LOAD BEARING INTERIOR WALLS ARE NOT LABELED.

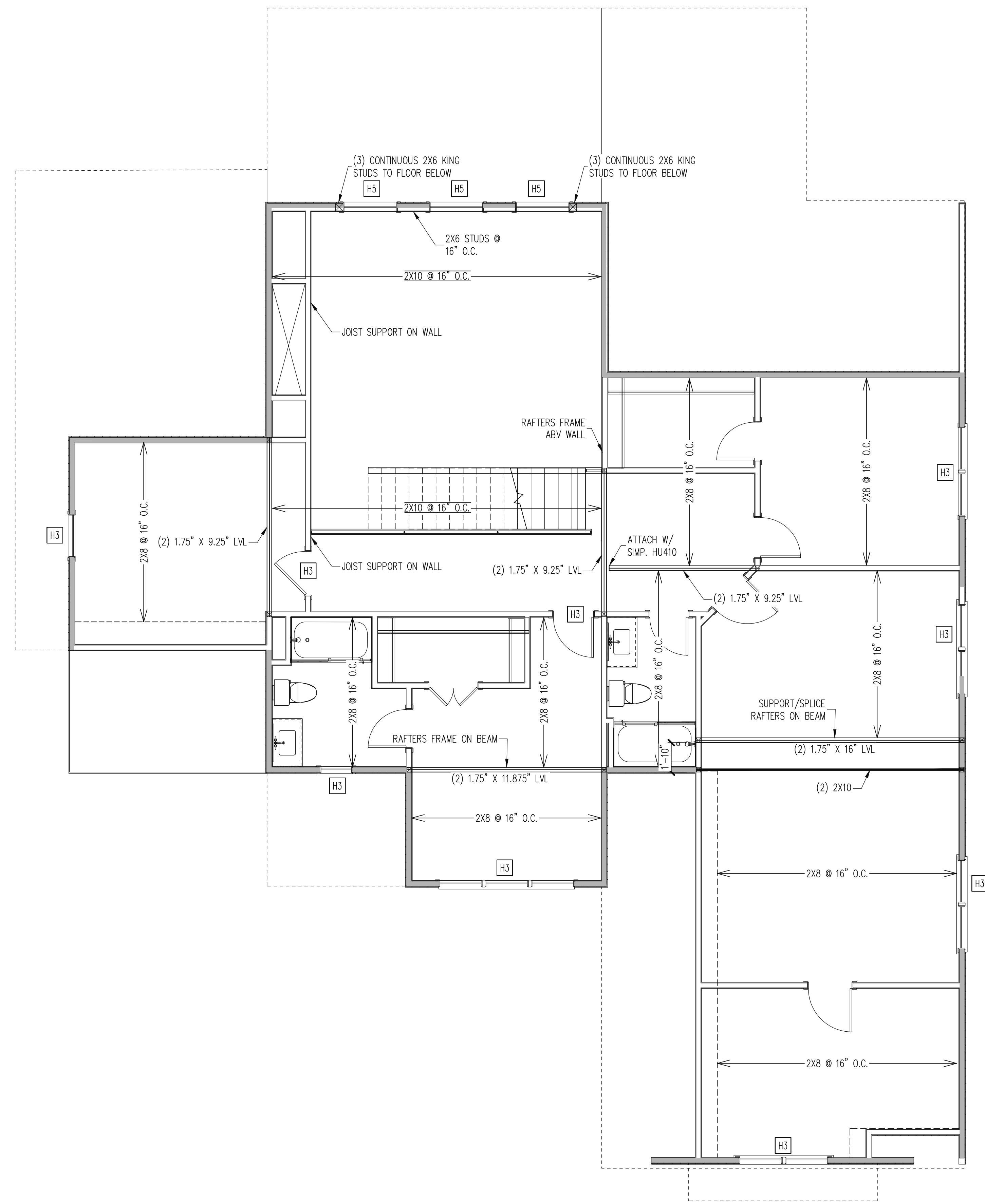
1ST FLOOR FRAMING PLAN
WALLS AND CEILING 1/4" = 1'-0"

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| Raleigh, North Carolina 27609 | |
| Phone (919) 844-1661 | |

| | |
|----------------------------|-------------|
| LILIAM HOMES | |
| STRUCTURAL ADDENDUM | |
| SCOPE: | DATE |
| LOC: | REV # |
| 13 COTTON FARMS | 1 24-66-350 |
| 11-1-2024 | 11-1-2024 |

| | |
|--------------------|-----------|
| ENG: | RJS/CR |
| DATE: | 11/1/2024 |
| PLAN | |
| M110-24 | |
| PROJECT NO. | |
| 24-21-198_450 | |
| SHEET NO. | |
| S3 | |
| 3 of 7 | |



WALL BRACING

CS - ALL EXTERIOR STUD WALLS, EXTERIOR SIDE, ARE TO BE CONTINUOUSLY SHEATHED WITH 7/16 APA RATED OSB NAILED TO STUDS WITH 8d NAILS @ 6" O.C. AT PANEL EDGES, 12" O.C. IN PANEL FIELD.

SHADED WALLS:

NOTES:
-PROVIDED CONTINUOUS SHEATHING = 156" MIN.

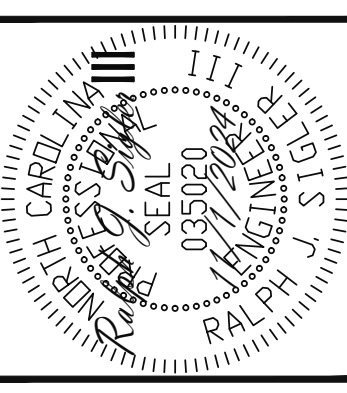
HEADER SCHEDULE

H1 SINGLE 2X4 TURNED FLAT (A)
H2 (2) 2X4'S ON SINGLE JACKS (B)
H3 (2) 2X10'S ON SINGLE JACKS (C)
H4 (2) 1.75" X 9.25" LVL'S ON DBL JACKS
H5 (3) 2X10'S ON SINGLE JACKS

NOTES:
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2ND FLOOR FRAMING PLAN
WALLS AND CEILING: 1/4" = 1'-0"

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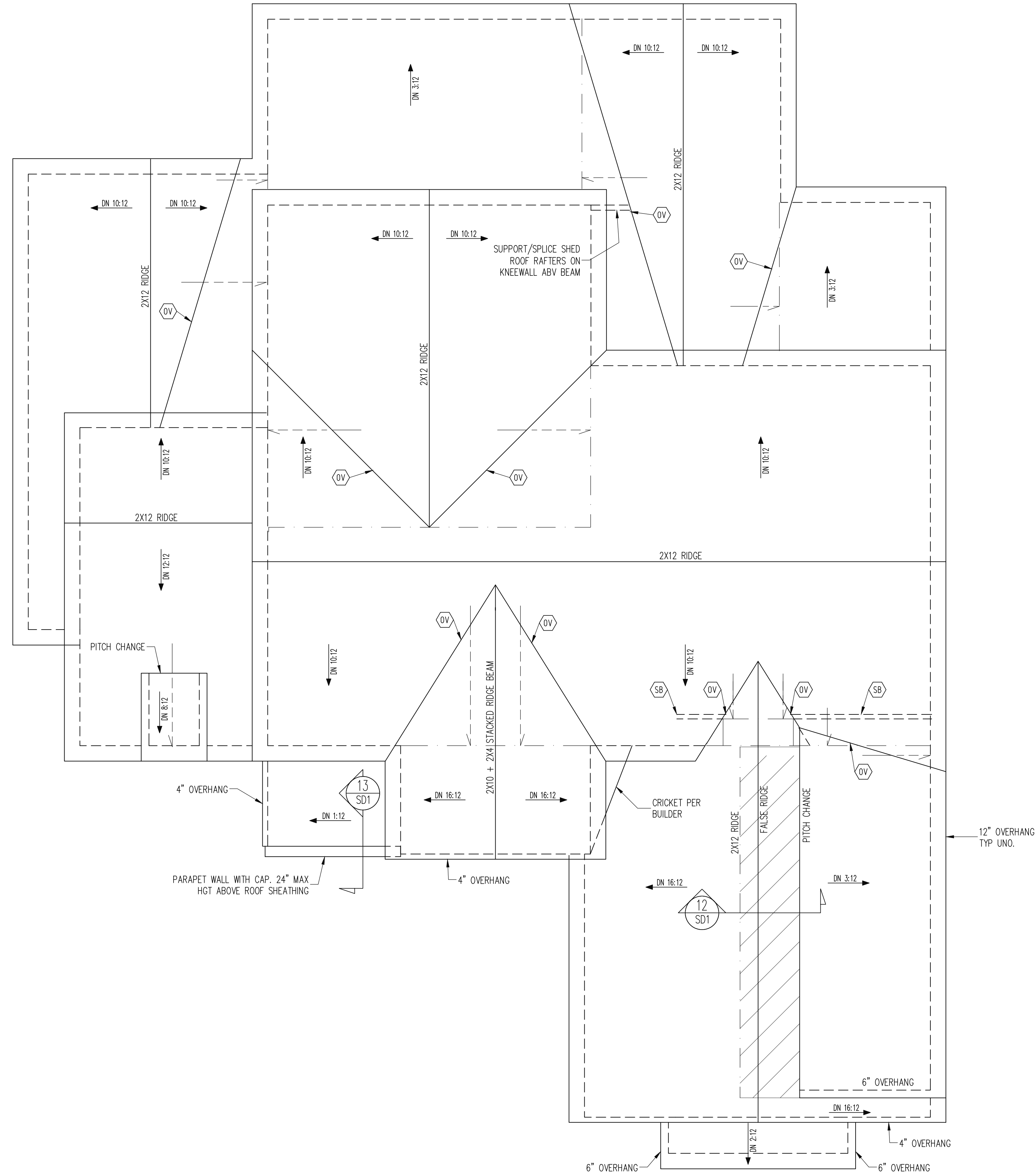
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|--------|---------------------|
| SCOPE: | LILJUM HOMES |
| | STRUCTURAL ADDENDUM |
| REV # | REF PROJ # |
| 1 | 24-66-350 |
| LOC: | 13 COTTON FARMS |
| DATE | 11-12-2024 |

ENG: RJS/CR
DATE: 11/1/2024

PLAN
M110-24

PROJECT NO.
24-21-198_450

SHEET NO.
S4
4 of 7

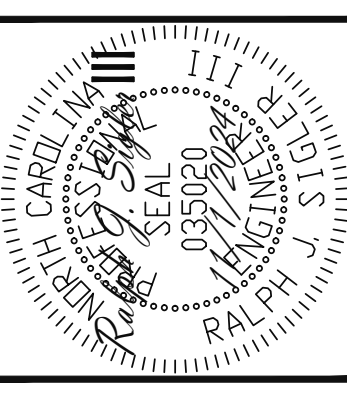


FRAMING NOTES
 ROOF ONLY
 -COMMON RAFTERS 2X8 @ 16" O.C. TYP U.N.O.
 -COLLAR TIES 2X4 EVERY 3RD SET OF RAFTERS TYP U.N.O.
 -VERIFY ROOF PITCHES, OVERHANG LENGTHS, AND KNEEWALL FRAMING HGTS WITH ARCHITECTURAL DRAWINGS, TYPICAL.

FRAMING SCHEDULE
 ROOF ONLY
 OV OVERFRAME VALLEY (2X10 SLEEPER)
 SB SUPPORT/SPLICE RAFTERS ON BEAM BELOW
 SS SUPPORT/SPLICE RAFTERS ON KNEEWALL BELOW

ROOF FRAMING PLAN
 1/4" = 1'-0"

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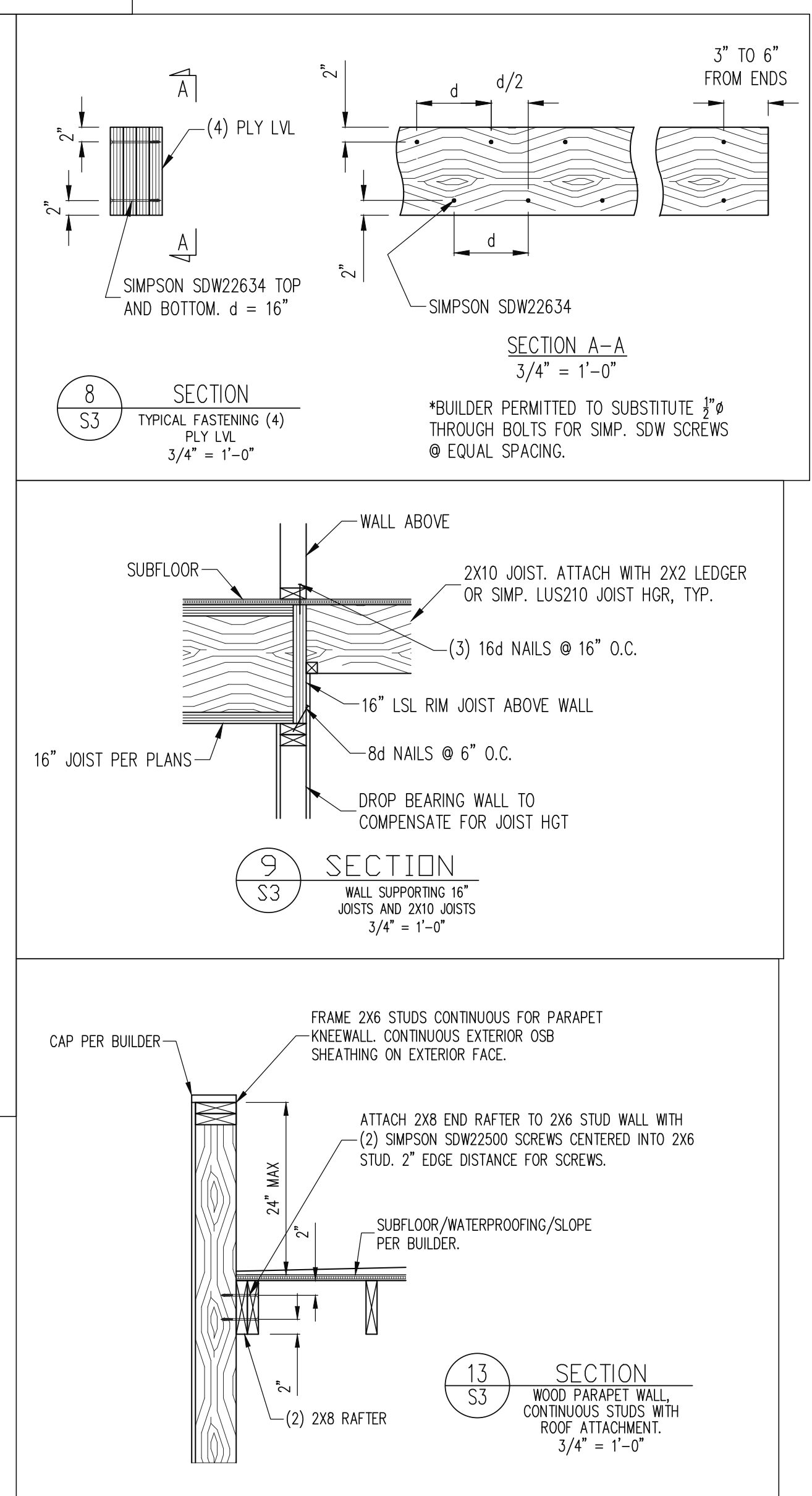
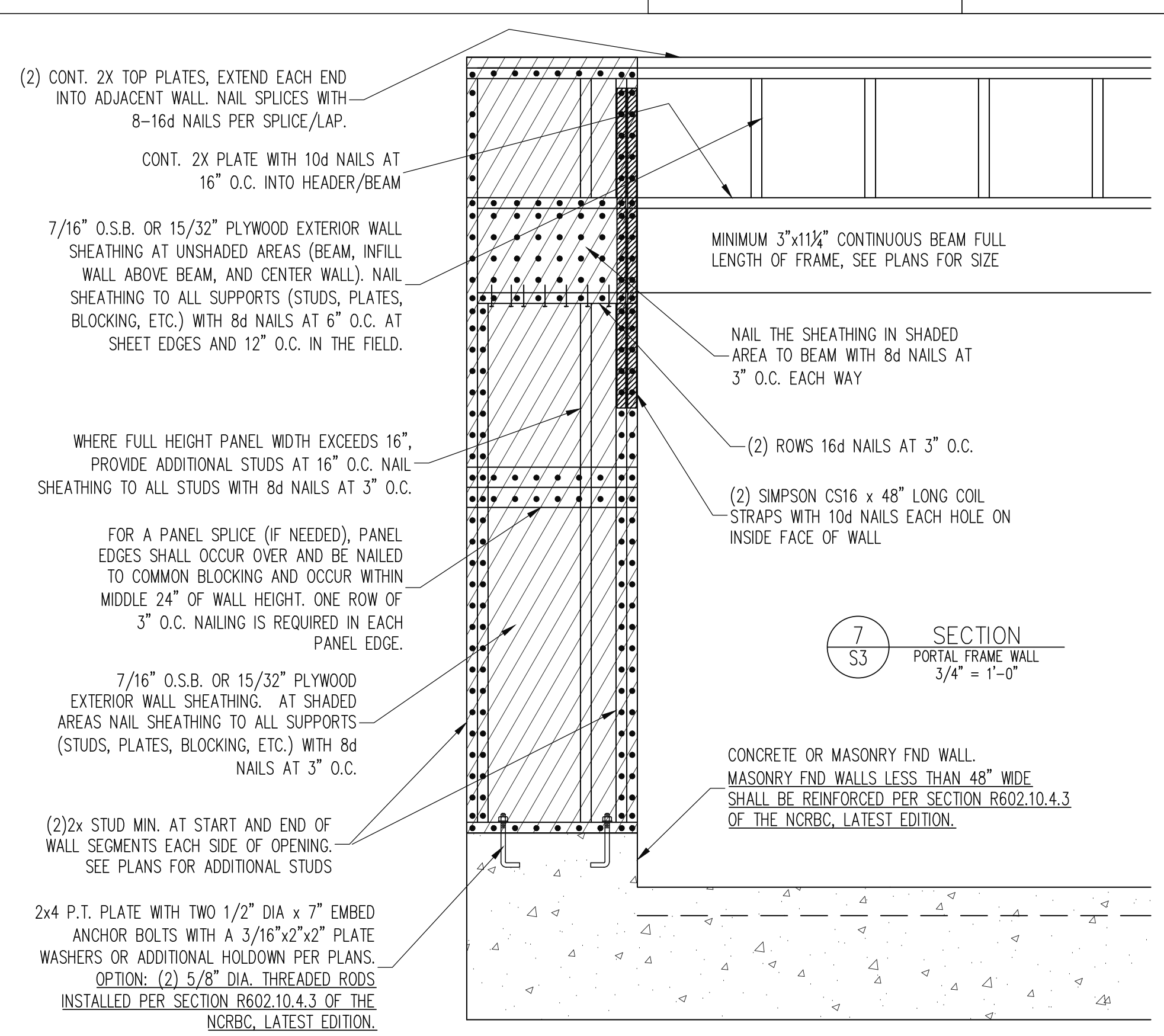
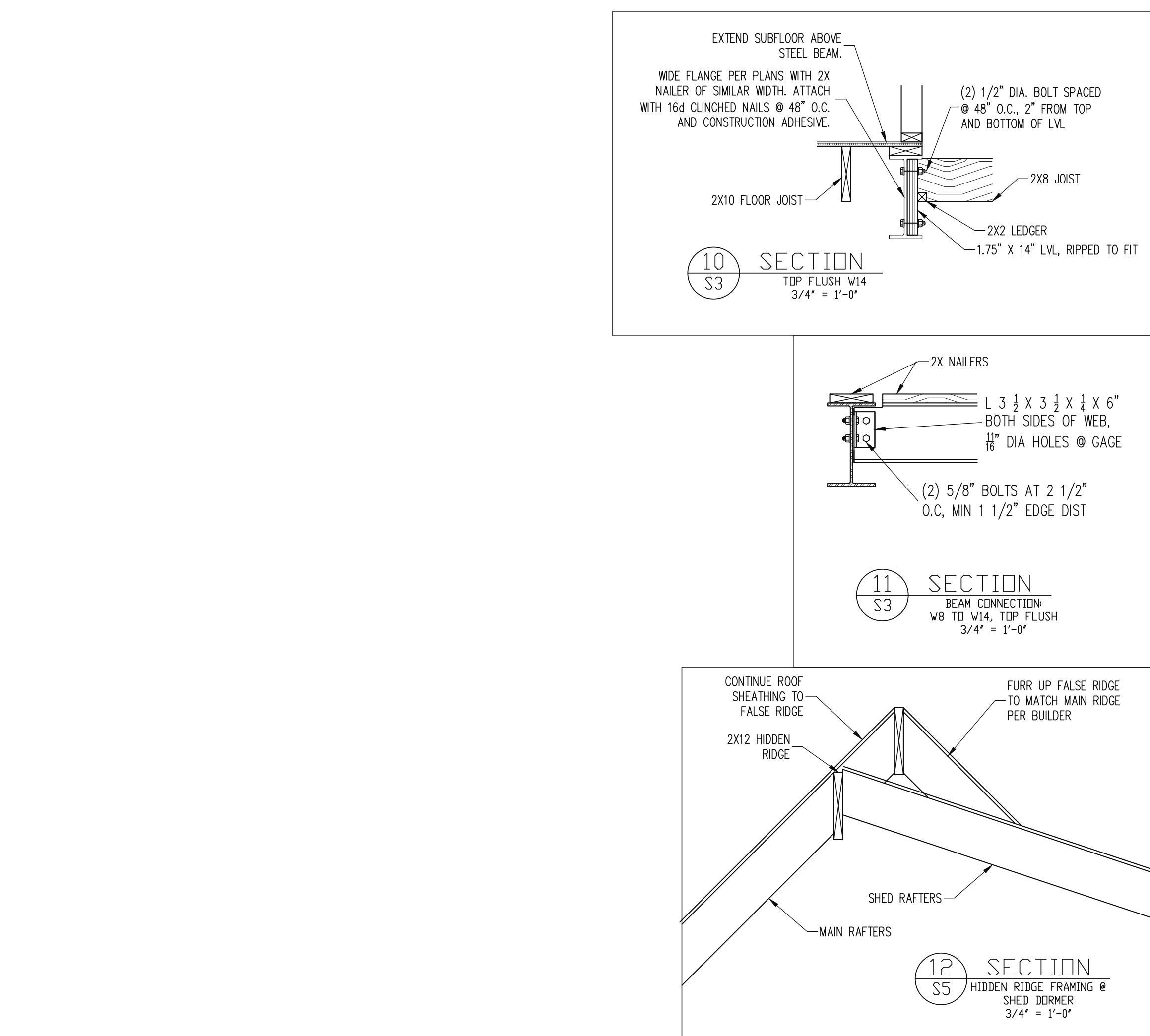
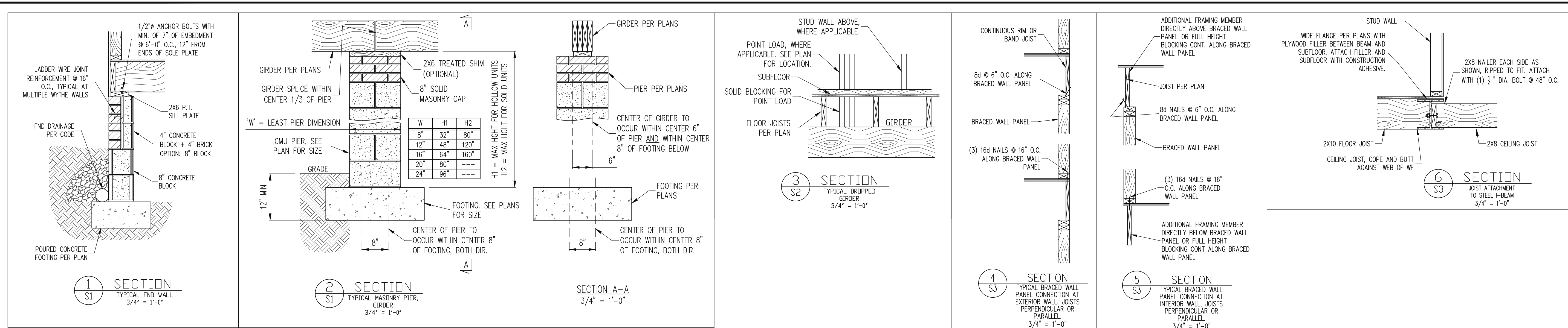
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|---------------------|---|
| LILJUM HOMES | |
| STRUCTURAL ADDENDUM | |
| SCOPE: | REV # REF PROJ # DATE |
| LOC: | 13 COTTON FARMS 24-66-350 11-1-2024 |

ENG: RJS/CR
 DATE: 11/1/2024

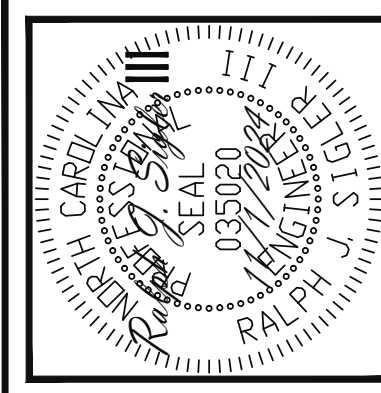
PLAN
 M110-24

PROJECT NO.
 24-21-198_450

SHEET NO.
 S5
 5 of 7



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| | |
|--------|---------------------|
| SCOPE: | LILJUM HOMES |
| | STRUCTURAL ADDENDUM |
| LOC: | 13 COTTON FARMS |
| REV # | REF PROJ # |
| 1 | 24-66-350 |
| DATE | 11-1-2024 |

ENG: RJS/CR
DATE: 11/1/2024

PLAN
M110-24

PROJECT NO.
24-21-198_450

SHEET NO.
SD1
6 of 7

NOTES

THE BUILDER IS RESPONSIBLE FOR REVIEWING PLANS PRIOR TO CONSTRUCTION. THE BUILDER SHALL IMMEDIATELY CONTACT THE ENGINEER OF RECORD (EOR) BEFORE PROCEEDING IF THE FOLLOWING CONDITIONS ARE NOTED BEFORE OR DURING CONSTRUCTION:

- THE WORKING PLANS DO NOT BEAR THE SEAL OF THE EOR
- THE PLANS CONTAIN DISCREPANT OR INCOMPLETE INFORMATION

ANY ERRORS DUE TO A FAILURE TO FOLLOW THE ABOVE PROCEDURES SHALL NOT BE THE RESPONSIBILITY OF THE EOR. FURTHERMORE, IT IS THE RESPONSIBILITY OF THE BUILDER TO ENSURE THAT ANY REVISIONS ISSUED BY THE EOR ARE PROMPTLY DISTRIBUTED TO THE SUBCONTRACTORS

THE EOR DOES NOT PERFORM FENESTRATION OR VENTING CALCULATIONS OR ANY OTHER CALCULATIONS THAT ARE NOT DIRECTLY RELATED TO STRUCTURAL ENGINEERING.

ROOF AND FLOOR TRUSSES TO BE DESIGNED BY AN ENGINEER REGISTERED BY THE STATE. FINAL TRUSS DRAWING SHOULD BE SUBMITTED TO THE EOR FOR REVIEW

ABBREVIATIONS

| | | |
|-------------------------|-----------------------------|----------------------------|
| ABV ABOVE | FND FOUNDATION | TJ TRIPLE JOIST |
| B BOTH | FTG FOOTING | TYP TYPICAL |
| B.E. BOTH ENDS | HDG HOT DIPPED | TRPL TRIPLE |
| BWN BETWEEN | GALV GALVANIZED | TSP TRIPLE STUD POCKET |
| CP CAST IN PLACE | HGR HANGER | UNO UNLESS NOTED OTHERWISE |
| CONC CONCRETE | LVL LAMINATED VENEER LUMBER | XJ EXTRA JOIST |
| CS CONTINUOUS SHEATHING | NTS NOT TO SCALE | |
| DIA DIAMETER | O.C. ON CENTER | |
| DBL DOUBLE | PSL PARALLEL STRAND LUMBER | |
| DJ DOUBLE JOIST | PT PRESSURE TREATED | |
| DSP DBL STUD POCKET | QJ QUAD JOIST | |
| EQ EQUAL | SP SPACE (OR SPACING) | |
| EA EACH | SQ SINGLE STUD POCKET | |
| FLG FLANGE | SO SQUARE | |
| FL PL FLUTCH PLATE | | |
| FLR FLOOR | | |

CONSTRUCTION SPECIFICATIONS

PART 1: GENERAL

1.01 CONSTRUCTION SHALL MEET THE REQUIREMENTS OF THE NORTH CAROLINA RESIDENTIAL CODE, 2018 EDITION.

1.02 DIMENSIONS SHOWN SHALL GOVERN OVER SCALE ON THESE DRAWINGS.

1.05 METHODS, PROCEDURES AND SEQUENCES OF CONSTRUCTION ARE THE RESPONSIBILITY OF THE CONTRACTOR, WHO SHALL TAKE ALL NECESSARY PRECAUTIONS TO MAINTAIN AND INSURE THE INTEGRITY OF THE STRUCTURE AT ALL STAGES OF CONSTRUCTION.

PART 2: DESIGN LOADS

2.01 DESIGN LOADS SHALL CONFORM WITH THE TABLE BELOW:

| USE | LIVE LOAD (PSF) | DEAD LOAD (PSF) |
|---|-----------------|--------------------|
| BALCONIES, DECKS, ATTICS WITH FIXED STAIR ACCESS, DWELLING UNITS INCLUDING ATTICS WITH FIXED STAIR ACCESS, STAIRS, FIRE ESCAPES | 40 | 10 |
| GARAGES (PASSENGER CARS ONLY) | 50 | --- |
| ATTICS (NO STORAGE, LESS THAN 5' HEADROOM) | 10 | 10 |
| ATTICS (WITH STORAGE) | 20 | 10 |
| ROOF | 20 | 10 (15 FOR VAULTS) |

NOTES: - INDIVIDUAL STAIR TREADS ARE TO BE DESIGNED FOR THE UNIFORMLY DISTRIBUTED LIVE LOAD OF 40 PSF OR A 300 LB. CONCENTRATED LOAD ACTING OVER AN AREA OF 4 SQ. WHICHEVER PRODUCES THE GREATER STRESS.
- BUILDER TO VERIFY DEAD LOAD DOES NOT EXCEED 10 PSF WHEN HEAVY FLOOR OR ROOF FINISHES SUCH AS TILE OR SLATE ARE UTILIZED. NOTIFY ENGINEERING UNDER THESE CONDITIONS

2.02 INTERIOR WALLS: 5 PSF LATERAL.

2.03 BASIC WIND DESIGN VELOCITY OF 120 MPH.

2.04 SOIL BEARING CAPACITY 2000 PSF (PRESUMPTIVE).

PART 3: STRUCTURAL STEEL

3.01 WIDE FLANGE BEAMS AND TEE SECTIONS SHALL CONFORM TO ASTM A992 MINIMUM GRADE

3.02 SQUARE AND RECTANGULAR TUBING SHALL CONFORM TO ASTM A500 GRADE B MINIMUM GRADE.

3.03 STEEL PIPE SHALL CONFORM TO ASTM A53 GRADE B, TYPE S, MINIMUM GRADE

3.04 ALL OTHER STRUCTURAL STEEL SHALL CONFORM TO ASTM A36 MINIMUM GRADE

3.05 STRUCTURAL STEEL CONSTRUCTION SHALL MEET THE REQUIREMENTS OF THE AISC SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS.

PART 4: WELDING

4.01 WELDING ELECTRODES SHALL BE E70XX AND ALL WELDING SHALL BE PERFORMED BY AN AWS CERTIFIED WELDER

PART 5: CONCRETE AND SLABS ON GRADE

5.01 CAST IN PLACE CONCRETE SHALL BE OF NORMAL WEIGHT, 4-6% AIR ENTRAINMENT, FOR EXTERIOR CONCRETE AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS TYP UNO. ALL ITEMS NOTED AS 'CONCRETE' ARE TO BE CAST IN PLACE, TYP UNO.

5.02 REINFORCED CAST IN PLACE CONCRETE SHALL BE PROPORTIONED, MIXED AND PLACED IN ACCORDANCE WITH THE SPECIFICATIONS OF ACI 318, LATEST EDITION.

5.03 SLABS ON GRADE, IF ANY, SHALL BE CAST IN PLACE, CONTAIN SYNTHETIC POLYPROPYLENE FIBRILLATED MICRO FIBERS, FIBER LENGTH 1 1/2", DOSAGE RATE 1 1/2 LBS/100 YD. SLAB TO BE PLACED ON A 6 MIL VAPOR BARRIER ON 4" MIN GRANULAR FILL ON SOIL WITH 90% MIN STANDARD PROCTOR DENSITY. VAPOR BARRIER MAY BE OMITTED FOR SLABS NOT IN ENCLOSED AREAS

PART 6: REBAR AND WIRE REINFORCEMENT

6.01 REBAR SHALL BE DEFORMED STEEL CONFORMING TO ASTM A615 GRADE 60 TYP UNO

6.02 LAP SPLICES SHALL BE CLASS B AS DEFINED BY ACI 318, TYP UNO

6.03 WIRE REINFORCEMENT SHALL BE 9 GA AND SHALL CONFORM TO ASTM A1064.

PART 7: MASONRY

7.01 CONCRETE MASONRY UNITS SHALL CONFORM TO ASTM C90 AND C55, NORMAL WEIGHT,

PART 8: BOLTS AND LAG SCREWS

8.01 BOLTS SHALL CONFORM TO ASTM A307 MINIMUM GRADE TYP UNO. INSTALL STANDARD STEEL WASHERS (ASTM F844-07a) FOR THE NUT / BOLT HEAD WHEN BOLTING WOOD MEMBERS. HOLES FOR BOLTS SHALL BE ASSC STANDARD HOLES UNO

8.02 LAG SCREWS SHALL CONFORM TO ANSI/ASME STANDARD B18.2.1-1981. PILOT HOLES SHALL BE USED FOR LAG SCREW INSTALLATION AND SHALL BE BORED ACCORDING TO NDS SPECIFICATIONS. INSTALL STANDARD STEEL WASHERS (ASTM F844-07a) FOR SCREW HEAD

8.03 ANCHOR RODS AND BOLTS SHALL CONFORM TO ASTM F1554-15 GRADE 36 UNO. BENT ANCHOR BOLTS SHALL HAVE A 2" MIN HOOK UNO

PART 9: DRIVEN FASTENERS

9.01 NAILS, SPIKES AND STAPLES SHALL CONFORM TO ASTM F 1667- 05. NAILS ARE TO BE COMMON WIRE OR BOX

PART 10: DIMENSIONAL LUMBER

10.01 SOLID SAWN WOOD FRAMING DESIGN IS BASED ON NO. 2 SPRUCE PINE FIR OR SYP #2 FOR JOISTS, RAFTERS, GIRDERS, BEAMS, STUDS, ETC. MINIMUM ALLOWABLE DESIGN PROPERTIES ARE AS FOLLOWS:
E= 1,400,000 PSI, F_c prop = 425 PSI, F_v = 285 PSI, SPECIFIC GRAVITY = 0.42 MIN
F_b = 875 PSI FOR 2X4, 2X6, 2X8, F_b = 800 PSI FOR 2X10'S, 750 PSI FOR 2X12'S

PART 11: ENGINEERED LUMBER

11.01 LVL OR PSL MINIMUM ALLOWABLE DESIGN PROPERTIES ARE AS FOLLOWS:
E= 1,900,000 PSI, F_b = 2600 PSI, F_v = 285 PSI, F_c prop = 750 PSI
LSL MINIMUM ALLOWABLE DESIGN STRESSES ARE AS FOLLOWS:
E= 1.3 X 10E6 PSI, F_b = 1700 PSI, F_v = 400 PSI, F_c prop = 680 PSI

11.02 LVL OR PSL MEMBERS MAY BE RIPPED FROM DEEPER MEMBERS TO MATCH THE MEMBER DEPTH SPECIFIED IN THE PLANS

PART 12: PRESSURE TREATED LUMBER

12.01 LUMBER IN CONTACT WITH THE GROUND, CONCRETE OR MASONRY SHALL BE PRESSURE TREATED IN ACCORDANCE WITH ANPA STANDARD C-15. ALL OTHER EXPOSED LUMBER SHALL BE TREATED IN ACCORDANCE WITH ANPA STANDARD C-2 OR BY ANY METHOD GIVING EQUAL PROTECTION. THE BUILDING CODE OFFICE MAY ALSO APPROVE A NATURAL DECAY RESISTANT WOOD PER SECTION 19-6(A)

PART 13: STEEL FLUTCH PLATE BEAMS

13.01 FLUTCH PLATE BEAMS SHALL CONSIST OF A CONTINUOUS STEEL PLATE BOLTED BETWEEN TWO PIECES OF CONTINUOUS LUMBER AS SIZED ON THE PLANS. BOLT PIECES TOGETHER USING 1/2" Ø BOLTS SPACED AT 16" O.C. STAGGERED TOP TO BOTTOM OF THE BEAM. MAINTAIN A 2" EDGE DISTANCE. PLACE TWO BOLTS, ONE ABOVE THE OTHER, 16" MAX FROM EACH END OF THE BEAM. TYP UNO

PART 14: STUD SUPPORTS FOR BEAMS

14.01 STEEL, ENGINEERED LUMBER, AND FLUTCH PLATE BEAMS BEARING ON A STUD WALL SHALL BEAR AS FOLLOWS:
1-WHEN THE BEAM IS PERPENDICULAR TO, OR SKEWED RELATIVE TO THE WALL, THE BEAM SHALL BEAR FULL WIDTH ON THE SUPPORTING WALL INDICATED AND SHALL BE SUPPORTED BY A MINIMUM OF THREE GANGED STUDS, OR A GANGED STUD COLUMN WITH A NUMBER OF STUDS SUCH THAT THE STUD COLUMN IS AT LEAST AS WIDE AS THE TRUE WIDTH OF THE BEAM BEING SUPPORTED, WHICHEVER IS GREATER, TYP UNO. FOR THE SKEWED CONDITION PARTICULAR CARE SHALL BE TAKEN TO ENSURE STUD COLUMN IS CENTERED ON THE BEAM
2-BEAMS BEARING ONTO THE END OF A STUD WALL PARALLEL TO THE BEAM SHALL BEAR A MINIMUM OF 4 1/2" ONTO THE WALL AND BE SUPPORTED BY A TRPL STUD GANGED COLUMN TYP UNO.

14.02 DIMENSIONAL LUMBER BEAMS BEARING ON A STUD WALL SHALL BEAR AS FOLLOWS:
1-WHEN THE BEAM IS PERPENDICULAR TO, OR SKEWED RELATIVE TO THE WALL, THE BEAM SHALL BEAR FULL WIDTH ON THE SUPPORTING WALL INDICATED LESS 1 1/2" TO ALLOW FOR A CONTINUOUS RIM JOIST WHERE APPLICABLE) AND SHALL BE SUPPORTED BY A GANGED STUD COLUMN THE SAME WIDTH AS THE BEAM TYP UNO. (E.G. A TRIPLE 2X10 IS TO BE SUPPORTED BY (3) STUDS). FOR THE SKEWED CONDITION PARTICULAR CARE SHALL BE TAKEN TO ENSURE STUD COLUMN IS CENTERED ON THE BEAM

2-BEAMS BEARING ONTO THE END OF A STUD WALL PARALLEL TO THE BEAM SHALL BEAR A MINIMUM OF 3" ONTO THE WALL AND BE SUPPORTED BY A DBL STUD GANGED COLUMN TYP UNO.

14.03 EXTRA JOISTS BEARING ON A STUD WALL PERPENDICULAR TO OR SKEWED RELATIVE TO THE BEAM SHALL BE SUPPORTED BY ONE ADDITIONAL STUD.

14.04 STUDS THAT ARE GANGED TO FORM A COLUMN SHALL HAVE ADJACENT STUDS WITHIN THE COLUMN NAILED TOGETHER WITH ONE ROW OF 10d NAILS AT 8" O.C. (TWO ROWS OF 10d NAILS @ 8" O.C. 3" APART, FOR 2X8 OR 2X10 STUDS) ALL COLUMNS SHALL BE CONTINUOUS DOWN TO THE FOUNDATION OR OTHER PROPERLY DESIGNED STRUCTURAL ELEMENT SUCH AS A BEAM. COLUMNS TRANSFERRING LOADS THROUGH FLOOR LEVELS SHALL BE SOLIDLY BLOCKED FOR THE FULL WIDTH OF THE STUD COLUMN WITHIN THE CAVITY FORMED BY THE FLOOR JOISTS.

PART 15: NAILING OF MULTI PLY WOOD BEAMS

15.01 SOLID SAWN LUMBER JOISTS THAT ARE GANGED TO FORM A BEAM SHALL HAVE ADJACENT MEMBERS IN THE BEAM TO BE NAILED TOGETHER WITH THREE ROWS OF 10d NAILS @ 16" O.C. FOR 2X10 OR LARGER, TWO ROWS OF 10d NAILS @ 16" O.C. FOR 2X8, ONE ROW OF 10d NAILS @ 16" O.C. FOR 2X6 OR SMALLER. STAGGER ROWS 5" MIN.

15.02 LVL MEMBERS THAT ARE GANGED TO FORM A BEAM SHALL HAVE ADJACENT MEMBERS IN THE BEAM FASTENED TOGETHER PER MANUFACTURERS RECOMMENDATIONS, TYP UNO

PART 16: WALL FRAMING AND BRACING

16.01 STUD WALLS SHALL CONSIST OF 2X4 STUDS SPACED AT 16" O.C. UNO. STUDS SHALL BE CONTINUOUS FROM SOLE PLATE AT FLOOR TO DOUBLE TOP PLATE AT THE CEILING OR ROOF. NO INTERMEDIATE BANDS OR PLATES SHALL CAUSE DISCONTINUITIES IN A STUD WALL EXCEPT AS REQUIRED FOR DOOR OR WINDOW OPENINGS. THE KING STUDS FOR SUCH OPENINGS SHALL BE CONTINUOUS, TYP UNO.
MAX ALLOWABLE WALL HEIGHTS FOR EXTERIOR STUD WALLS, INCLUSIVE OF SOLE PLATE AND DBL TOP PLATE AND 7/16" OSB EXTERIOR BRACING AND ROW OF 2X4 2X6 PURLINS AT 8' HEIGHT (AND AT 16' HEIGHT FOR TALL WALLS), TYP UNO:
2X4 @ 16" O.C. 11'-1 1/2" 2X6 @ 16" O.C. 17'-0"
2X4 @ 12" O.C. 12'-1 1/2" 2X6 @ 12" O.C. 15'-8"
DBL 2X4 @ 16" O.C. 13'-4" DBL 2X6 @ 16" O.C. 21'-0"

16.02 FOR WALL BRACING THE FOLLOWING SHALL APPLY:
-BLOCKING AT UNSUPPORTED PANEL EDGES IS REQUIRED TYP UNO
-WALL BRACING IS BY ENGINEERED DESIGN AND NOT PRESCRIPTIVE PER SECTION 602.10 OF THE 2018 NRC. CONTINUOUS SHEATHING HAS BEEN PROVIDED, ALONG WITH ALTERNATIVE METHODS TO INSURE THE MINIMUM INTENT OF SECTION 602.10 OF THE 2018 NRC HAS BEEN MET AND EXCEEDED.
-BRACED WALL PANELS SHALL BE FASTENED IN ACCORDANCE WITH TABLE 602.3(1) TO PROVIDE CONTINUOUS PANEL UPLIFT RESISTANCE AND COMPLIANCE WITH NRCB R602.3.5 AND R602.11 UNLESS NOTED OTHERWISE ON STRUCTURAL PLANS.
-MAY SUBSTITUTE WSP FOR GR
-SINGLE JOIST, CONTINUOUS RIM JOIST, OR BLOCKING OF EQUAL DEPTH IS REQUIRED ABOVE AND BELOW ALL BRACED WALLS. NAIL BLOCKING ABOVE WALL TO TOP PLATE WITH 16d TOE NAILS @ 6" O.C. NAIL SOLE PLATE AT BRACED WALL TO BLOCKING BELOW WITH (3) 16d NAILS @ 16" O.C. BLOCKING AT HORIZONTAL JOINTS IN BRACED WALL LINES ONLY REQUIRED AT SHADDED WALLS, UNO.

PART 17: KING STUDS

17.01 KING STUDS FOR OPENINGS IN EXTERIOR WALLS SHALL BE AS FOLLOWS:

| MAX OPENING WIDTH | NUMBER OF KING STUDS | | | | |
|-------------------|----------------------|-------|--------|--------|--------|
| | 5'-0" | 9'-0" | 13'-0" | 17'-0" | 21'-0" |
| 2X4 | 1 | 2 | 3 | 4 | 5 |
| 2X6 | 1 | 1 | 2 | 2 | 2 |
| 2X8 | 1 | 1 | 1 | 1 | 2 |

PART 18: SUBSTITUTIONS

18.01 MATERIAL OR MEMBER SIZE SUBSTITUTIONS OR PLAN DEVIATIONS REQUIRE THE WRITTEN AUTHORIZATION OF THE DESIGNERS. UNAUTHORIZED DEVIATIONS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

PART 19: OWNERSHIP OF STRUCTURAL DESIGN

19.01 THE STRUCTURAL DESIGN OF THIS PLAN IS THE PROPERTY OF ENGINEERING TECH ASSOCIATES (ETA). THESE PLANS ARE FOR THE ONE TIME USE AT THE LOCATION INDICATED AND FOR THE CLIENT LISTED. ETA ASSUMES NO LIABILITY FOR THESE PLANS IF THEY ARE REPRODUCED, IN WHOLE OR IN PART, FOR CONSTRUCTION AT ANY OTHER LOCATION WITHOUT WRITTEN PERMISSION FROM ETA

DECK SPECIFICATIONS

1. A DECK IS AN EXPOSED EXTERIOR WOOD FLOOR STRUCTURE WHICH MAY BE ATTACHED TO A STRUCTURE OR BE FREE STANDING. ROOFED PORCHES, OPEN OR SCREENED IN, MAY BE CONSTRUCTED USING THESE PROVISIONS.

2. SUPPORT POSTS SHALL BE SUPPORTED BY A FOOTING.

3. WHEN ATTACHED TO A STRUCTURE, THE STRUCTURE TO WHICH ATTACHED SHALL HAVE A TREATED WOOD BAND FOR THE LENGTH OF THE DECK, OR CORROSION RESISTANT FLASHING SHALL BE USED TO PREVENT MOISTURE FROM COMING IN CONTACT WITH THE UNTREATED FRAMING OF THE STRUCTURE. THE DECK BAND AND THE STRUCTURE BAND SHALL BE CONSTRUCTED IN CONTACT WITH EACH OTHER EXCEPT AT BRICK VENEER AND WHERE PLYWOOD SHEATHING IS REQUIRED AND PROPERLY FLASHED. SIDING SHALL NOT BE INSTALLED BETWEEN THE STRUCTURE AND THE DECK BAND. IF ATTACHED TO A BRICK STRUCTURE, NEITHER FLASHING NOR A TREATED BAND FOR THE BRICK STRUCTURE IS REQUIRED. IN ADDITION, THE TREATED DECK BAND SHALL BE CONSTRUCTED IN CONTACT WITH THE BRICK

4. WHEN THE DECK IS SUPPORTED AT THE STRUCTURE BY ATTACHING THE DECK TO THE STRUCTURE, THE FOLLOWING ATTACHMENT SCHEDULES SHALL APPLY FOR ATTACHING THE DECK BAND TO THE STRUCTURE:

A. ALL STRUCTURES EXCEPT BRICK STRUCTURES

| REQUIRED FASTENERS | JOIST LENGTH | |
|---|---|----------------|
| | UP TO 8' MAX. | UP TO 16' MAX. |
| ONE- 5/8" Ø BOLT @ 42" O.C. AND (2) ROWS OF 12d NAILS @ 8" O.C. OR TWO ROWS OF SIMPSON SDWS22400DB @ Ø = 32" O.C. STAGGERED | ONE- 5/8" Ø BOLT @ 20" O.C. AND (3) ROWS OF 12d NAILS @ 6" O.C. OR TWO ROWS OF SIMPSON SDWS22400DB @ Ø = 16" O.C. STAGGERED | |

A. BRICK VENEER STRUCTURES

| REQUIRED FASTENERS | JOIST LENGTH | |
|-----------------------------|-----------------------------|----------------|
| | UP TO 8' MAX. | UP TO 16' MAX. |
| ONE- 5/8" Ø BOLT @ 28" O.C. | ONE- 5/8" Ø BOLT @ 16" O.C. | |

5. IF THE DECK BAND IS SUPPORTED BY A 1/2" MINIMUM MASONRY LEDGE ALONG THE FOUNDATION WALL, 5/8" Ø BOLTS SPACED @ 48" O.C. MAY BE USED FOR SUPPORT.

6. OTHER MEANS OF SUPPORT, SUCH AS JOIST HANGERS, MAY BE USED TO CONNECT DECK JOISTS TO A TREATED STRUCTURE BAND

7. GIRDERS SHALL BEAR DIRECTLY ON POSTS OR BE CONNECTED TO THE SIDES OF POSTS WITH 2- 5/8" Ø BOLTS

8. FLOOR DECKING SHALL BE NO. 2 GRADE TREATED SOUTHERN PINE OR EQUIVALENT. THE MINIMUM FLOOR DECKING THICKNESS SHALL BE AS FOLLOWS:

| JOIST SPAN | DECKING |
|------------|------------|
| 12" O.C. | 1" S4S |
| 16" O.C. | 1" T&G |
| 24" O.C. | 1 1/4" S4S |
| 32" O.C. | 2" S4S |

9. MAXIMUM HEIGHT OF DECK SUPPORT POSTS IS AS FOLLOWS:

| POST SIZE | MAX POST HEIGHT |
|------------|-----------------|
| 4X4 | 8' |
| 6X6 | 20' |
| ENGINEERED | 20' + |

NOTES: 1) THIS TABLE IS BASED ON NO. 2 TREATED SOUTHERN PINE POSTS.
2) THIS TABLE IS BASED ON A MAXIMUM TRIBUTARY AREA OF 128 SQ. FT.
3) POST HEIGHT IS FROM TOP OF FOOTING TO BOTTOM OF GRADER.

10. DECKS SHALL BE BRACED TO PROVIDE LATERAL STABILITY BY ONE OF THE FOLLOWING METHODS:

A. WHEN THE DECK FLOOR HEIGHT IS LESS THAN 4'-0" AND THE DECK IS ATTACHED TO THE STRUCTURE IN ACCORDANCE WITH SECTION 4, LATERAL BRACING IS NOT REQUIRED.

B. 4X4 WOOD KNEE BRACES MAY BE PROVIDED ON EACH COLUMN IN BOTH DIRECTIONS. THE KNEE BRACES SHALL ATTACH TO EACH POST AT A POINT NOT LESS THAN 1/3 OF THE POST LENGTH FROM THE TOP OF THE POST, AND THE BRACES SHALL BE ANGLED BETWEEN 45° AND 60° FROM THE HORIZONTAL. KNEE BRACES SHALL BE ATTACHED AT THE ENDS TO THE GIRDER AND THE POST WITH ONE - 5/8" Ø BOLT

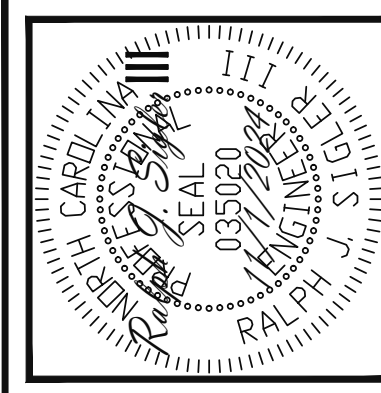
C. FOR FREE STANDING DECKS WITHOUT KNEE BRACES OR DIAGONAL BRACING, LATERAL STABILITY MAY BE PROVIDED BY EMBEDDING THE POSTS IN CONCRETE IN ACCORDANCE WITH THE FOLLOWING:

| POST SIZE | TRIBUT. AREA | POST HEIGHT | EMB. DEPTH | CONC. DIAM. |
|-----------|--------------|-------------|------------|-------------|
| 4X4 | 48 SQ. FT. | 4'-0" | 2'-6" | 1'-0" |
| 6X6 | 120 SQ. FT. | 6'-0" | 3'-6" | 1'-8" |

D. 2X6 DIAGONAL VERTICAL CROSS BRACING SHALL BE PROVIDED IN TWO PERPENDICULAR DIRECTIONS FOR FREE STANDING DECKS OR PARALLEL TO THE STRUCTURE AT THE EXTERIOR COLUMN LINE FOR ATTACHED DECKS. THE BRACES SHALL BE ATTACHED TO THE POSTS WITH ONE - 5/8" Ø BOLT AT EACH END OF THE BRACE.

NOTES: 1) ALL NAILS AND BOLTS ARE TO BE HOT DIPPED GALVANIZED.
2) MINIMUM EDGE DISTANCE FOR BOLTS IS 2 1/2".
3) NAILS MUST PENETRATE THE SUPPORTING STRUCTURE BAND A MINIMUM OF 1 1/2".

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|--------|------|-----------------|-------|---|------------|-----------|------|------------|
| SCOPE: | LOC: | 13 COTTON FARMS | REV # | 1 | REF PROJ # | 24-66-350 | DATE | 11-12-2024 |
| | LOC: | 13 COTTON FARMS | REV # | 1 | REF PROJ # | 24-66-350 | DATE | 11-12-2024 |

ENG: RJS/CR
DATE: 11/1/2024

PLAN
M110-24

PROJECT NO.
24-21-198_450

SHEET NO.
SD2
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